REMARKS

The Office Action dated April 20, 2005, has been carefully reviewed and the foregoing election/restriction and amendment have been made in consequence thereof. Applicants elected Invention I, Claims 24-28.

Claim 24 has been amended, and claims 27 and 28 have been canceled. Claims 29 and 30 have been canceled. Claims 1-23, which had been withdrawn, are canceled.

Claims 24, as amended, 25 and 26 remain active in this application.

The Examiner rejected claims 24 and 28 under 35 U.S.C. 102(b) as being anticipated by Alsberg (WO 95/25249).

Claim 24 has been amended to teach an article of sheet material having a flexible sheet of breathable polymer material, a die being heated to about 400°F and being applied under pressure of about 500 p.s.i., reservoir which is attached to the article, and tubing comprising a heat-conducting polymer. These teaching of Applicants are not disclosed in Alsberg.

Alsberg teaches a method to fabricate a tubing based heating/cooling system for a rigid flooring system, but does not claim a breathable article of sheet material as taught by Applicants. Alsberg teaches use of 'Hydronic' tubing whereby, the term hydronic means part of the entire radiant floor system consists of boiler, manifolds, controls and tubing. Alsberg uses a separate heat conductive sheet under tubing that has been embossed to match the pattern of grooves and then said sheet is bonded to sub-floor panels. Applicants teach use of heat conductive tubing without use of separate heat conductive sheets or material.

The Examiner rejected claims 25-27 under 35 U.S.C. 103(a) as being unpatentable over Alsberg (WO 95/25249).

Claim 27 has been canceled, and claims 25 and 26 are dependent on amended claim 24 which teaches an article of sheet material comprising breathable polymer material, as mentioned above. Applicants assert that these teachings are not obvious in view of Alsberg.

Alsberg teaches how hydronic tubing is overlaid with structural material whose characteristics are sufficient to be fastened directly over tubing as to walk upon a finished structure. Applicants state that one's foot can be applied directly over the heat conductive tubing taught by Applicants, i.e. a person cannot walk directly upon Alsberg's hydronic tubing.

Alsberg teaches a double layer system requiring two sets of matching multiplicity of grooves and a heat conducting layer embossed to match said grooves. Applicants require use of only a single layer with no other embossed layer needed.

Concerning any suggestion that it would be obvious to use heat and pressure to form grooves into a footpad, Applicants further assert that using a heated aluminum die at 400°F in combination with extensive pressure used at 500 p.s.i. is unique and not obvious when considering use of breathable urethane material. It is especially difficult to construct Applicants' sheet material considering its combination of properties offering toughness, rigidity, comfort and breathable characteristics. Typical rubber, silicone and other types of sheet material simply melt at 400 degrees, notwithdstanding accepting the groove design, of aluminum die, in which heat conductive tubing is perfectly inset within

grooved walls so as not to protrude upon the material's surface to permit walking discomfort or shutting off a circuit of fluid within the tubing.

Applicants had access to a high pressure hydraulic machine typically used to make ballistic panels from Kevlar®-type materials. The machine forces air out of such materials. To achieve 500 p.s.i. requires such a special machine; and the invention would not be obvious to anyone not having access to such a machine.

In view of the foregoing remarks and amendments, it is believed that Claims 24, as amended, 25 and 26 in this application are allowable and Notice to that effect is respectfully solicited.

Should the Examiner wish to contact Applicants' attorney regarding this application, the Examiner is respectfully invited to do so by calling or writing the undersigned in the Office of Counsel, U.S. Army Soldier Systems Center, Natick, MA 01760 at (508) 233-4510.

Respectfully submitted,

August 24, 2005
Date

Vincent J. Ranucci
Attorney for Applicant
Reg. No. 29,579